



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,939	11/06/2001	Gordon Good	13220.008001; P5843	5488
32615	7590	05/18/2005	EXAMINER	
OSHA LIANG L.L.P./SUN			DODDS, HAROLD E	
1221 MCKINNEY, SUITE 2800			ART UNIT	
HOUSTON, TX 77010			PAPER NUMBER	

2167

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Supplemental
Office Action Summary H.E.D.

Application No.

09/993,939

Applicant(s)

GOOD ET AL.

Examiner

Harold E. Dodds, Jr.

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 5/16/05.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 14 October 2004. These drawings are accepted.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 5, 9, 10, 13, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes et al. ("The LDUP Replication Update Protocol"), Oulid-Aissa et al. (U.S. Patent No. 5,835,757), and Long et al. (U.S. Patent No. 5,805,822).

4. Stokes renders obvious independent claim 1 by the following:
"...a supplier server..." at p. 3, sec. 4.

“...a consumer server in communication with the supplier server...” at p. 3, sec. 4.

“...that manage replication of data contained within the directory server...” at p. 3, sec. 3.

“...from the supplier server to the consumer server...” at p. 3, sec. 4.

“...and a change sequence number...” at p. 9, sec. 5.3.2.2.

“...used to determine ordering of operations...” at p. 3, sec. 3.

“...performed on the consumer server...” at p. 3, sec. 4.

“...wherein replication of data is managed using the change sequence number...” at p. 3, sec. 3 and p. 9, sec. 5.3.2.2.

“...wherein the change sequence number...” at p. 9, sec. 5.3.2.2.

“...a sequence number portion...” at p. 9, sec. 5.3.2.2.

“...a replica identifier portion...” at p. 6, sec. 5.1.

Stokes does not teach the use of pluggable services, the use of tuples, the use of time stamps, and the use of sub-sequence numbers.

5. However, Oulid-Aissa teaches the use of pluggable services, the use of tuples, and the use of time stamps as follows:

“...a plurality of pluggable services...” at col. 3, lines 42-45.

“...is a tuple...” at col. 10, lines 49-51.

“...comprising a time stamp portion...” at col. 28, lines 10-20.

It would have been obvious to one of ordinary skill at the time of the invention to combine Oulid-Aissa with Stokes to provide pluggable services in order to support true distributed transparencies for distributed databases. Likewise, it would have been obvious to one of ordinary skill at the time of the invention to combine Oulid-Aissa with

Stokes to use tuples in order to group data elements and support the association of data in a database. Furthermore, it would have been obvious to one of ordinary skill at the time of the invention to combine Oulid-Aissa with Stokes to provide time stamps in order to identify the time that a record was either created or modified. Stokes and Oulid-Aissa have similar applications and use many technologies in common. Stokes and Oulid-Aissa teach the use of protocol, the use of servers, the updating of data, the use of directories, the use of numbers, and the use of sequences. Stokes provides consumer and supplier servers and change sequence numbers and Oulid-Aissa provides pluggable services and timestamps. In independent claim 1 the term "record" is used to suggest the term "tuple".

Oulid-Aissa does not teach the use of sub-sequence numbers.

6. However, Long teaches the use of sub-sequence numbers as follows:
"...and a sub-sequence number portion..." at col. 6, lines 38-42.

It would have been obvious to one of ordinary skill at the time of the invention to combine Long with Stokes and Oulid-Aissa to provide sub-sequence numbers in order to identify the sub-segments of a set when the set is resegmented into smaller groupings. Stokes, Oulid-Aissa, and Long have related applications and use many technologies in common. Stokes, Oulid-Aissa, and Long teach the use of protocol, the use of servers, the use of data, the use of numbers, and the use of sequences and Oulid-Aissa and Long teach the use of computers, the use of databases, the use of networks, and the use of clients. Stokes provides consumer and supplier servers and

change sequence numbers, Oulid-Aissa provides pluggable services and time stamps, and Long provides sub-sequence numbers.

7. As per independent claims 10, and 18, the "...initializing the change sequence number..." is taught by Stokes at p. 5, sec. 5.1 and p. 9, sec. 5.3.2.2, the "...retrieving a timestamp portion...", is taught by Oulid-Aissa at col. 21, lines 16-20 and col. 28, lines 10-20, the "...retrieving a sequence number portion...", is taught by Stokes at p. 7, sec. 5.3 and p. 9, sec. 5.3.2.2, the "...retrieving a replica identifier portion...", is taught by Stokes at p. 7, sec. 5.3 and p. 6, sec. 5.1, the "...and retrieving a sub-sequence number portion...", is taught by Long at col. 10, lines 8-10 and col. 6, lines 38-42, the "...wherein the timestamp portion...", is taught by Oulid-Aissa at col. 28, lines 10-20, the "...sequence portion...", is taught by Stokes at p. 9, sec. 5.3.2.2, the "...replica identifier portion...", is taught by Stokes at p. 6, sec. 5.1, the "...and the sub-sequence portion...", is taught by Long at col. 6, lines 38-42, the "...are joined into a tuple...", is taught by Oulid-Aissa at col. 10, lines 49-51. that forms the change sequence number...", is taught by Stokes at p. 6, sec. 5.1 and p. 9, sec. 5.3.2.2,

The term "set" is used for "initialize", the term "request" is used for "retrieve", and the term "database record" is used to suggest a group or tuple.

8. As per claim 5, the "...the timestamp portion comprises a network offset component...", is taught by Oulid-Aissa at col. 28, lines 10-20, col. 2, lines 5-10, and col. 28, lines 22-23.

9. As per claims 9 and 17, the "...change sequence number is assigned...", is taught by Stokes at p. 9, sec. 5.3.2.2 and p. 7, sec. 5.3 and the "...when an entry is modified by a client...", is taught by Oulid-Aissa at col. 26, lines 6-11 and col. 14, lines 44-45. The term "set" has been used for "assign" and the term "transaction" has been used for "entry".

10. As per claim 13, the "...the timestamp portion comprises a network offset component...", is taught by Oulid-Aissa at col. 28, lines 10-20, col. 2, lines 5-10, and col. 28, lines 22-23.

11. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, Oulid-Aissa, and Long as applied to claim 1 above, and further in view of Horst et al. (U.S. Patent No. 6,567,892).

As per claim 3, the "...of the change sequence number...", is taught by Stokes at p. 9, sec. 5.3.2.2, but the "...highest value..." and the "...is maintained in stable storage...", is not taught by either Stokes, Oulid-Aissa or Long.

However, Horst teaches the use of the highest value and stable memory as follows:

Art Unit: 2167

"...The sectors of a disk are mapped to LBA values in sequence from 0 to the highest LBA on the disk or array..." at col. 11, lines 27-29.

"...If either target bin is Stable, both bins are changed to hanging and committed to nonvolatile storage before the normal disk write is begun..." at col. 16, lines 29-31.

It would have been obvious to one of ordinary skill at the time of the invention to combine Horst with Stokes, Oulid-Aissa, and Long to provide highest values and stable storage to maintain the highest value for the sequence numbers in memory such that it will remain whenever the power is off in order to maintain an orderly update of the data. Stokes, Oulid-Aissa, Long, and Horst have related applications and use many technologies in common. Stokes, Oulid-Aissa, and Horst teach the use of servers, the use of data, the use of numbers, and the use of sequences, Oulid-Aissa, Long, and Horst teach the use of computers, the use of databases, and the use of networks, and Stokes, Oulid-Aissa, and Horst teach the update of data. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides pluggable services and time stamps, Long provides sub-sequence numbers, and Horst provides stable storage for the highest value of the update sequence number.

12. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, Oulid-Aissa, and Long as applied to claims 1 and 10 above respectively, and further in view of Terry et al. (U.S. Patent No. 5,581,753) and Orcutt (U.S. Patent No. 6,185,575).

As per claims 4 and 12, the "...the timestamp portion..." is taught by Oulid-Aissa at col. 28, lines 10-20,

but the "...is represented by logical time..."

and the "...and is thirty-two bits in length..." are not taught by either Stokes, Oulid-Aissa, or Long.

However, Terry teaches the use of logical time as follows:

"...Each server maintains its own version vector with the following invariant: if a server has $\langle S, c \rangle$ in its version vector, then it has received all Writes that were assigned a WID by server S before or at logical time c on S's clock..."

It would have been obvious to one of ordinary skill at the time of the invention to combine Terry with Stokes, Oulid-Aissa, and Long to provide logical time stamps in order to reference the time stamps to system entities such as servers. Stokes, Oulid-Aissa, Long, and Terry have related applications and use many technologies in common. Stokes, Oulid-Aissa, Long, and Terry teach the use of servers, the use of data, the use of numbers, and the use of sequences and Oulid-Aissa, Long, and Terry teach the use of computers, the use of databases, the use of clients, and the updating of data. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides time stamps, Long provides sub-sequence numbers, and Terry provides logical time stamps.

Terry does not teach the use of thirty-two bit variables.

However, Orcutt teaches the use of thirty-two bit variables as follows:

"...Full support for large disks may require the use of sixty-four bit variables to hold sector numbers. Although shorter variables (such as thirty-two bit variables) may be used with many partitions on many systems 400, the larger variables are preferred..." at col. 17, lines 24-28.

It would have been obvious to one of ordinary skill at the time of the invention to combine Orcutt with Stokes, Oulid-Aissa, Long, and Terry to provide thirty-two bit variables in order to permit an application designer to define the size of variables. Stokes, Oulid-Aissa, Long, Terry, and Orcutt have related applications and use many technologies in common. Stokes, Oulid-Aissa, Long, Terry, and Orcutt teach the use of servers, the use of data, the use of numbers, and the use of sequences, Oulid-Aissa, Long, Terry, and Orcutt teach the use of computers, the use of databases, the use of clients, and the updating of data, Stokes, Oulid-Aissa, and Orcutt teach the use of directories, and Oulid-Aissa, Long, and Orcutt teach the use of networks. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides time stamps, Long provides sub-sequence numbers, Terry provides logical time stamps, and Orcutt provides thirty-two bit variables.

13. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, Oulid-Aissa, and Long as applied to claims 1 and 10 above respectively, and further in view of Safadi (U.S. Patent No. 5,892,910) and Mikurak (U.S. Patent No. 6,606,744).

As per claims 6 and 14, the "...sequence number portion is generated..." is taught by Stokes at p. 9, sec. 5.3.2.2 and p. 14, sec. 7, but the "...by an incremental counter..." and the "...and is sixteen bits in length..." is not taught by either Stokes, Oulid-Aissa, or Long.

However. Safadi teaches the use of an incremental counter as follows:

Art Unit: 2167

"...The continuity counter field 614 is an incremental counter which increments with each transport packet with the same PID..." at col. 19, lines 28-30.

It would have been obvious to one of ordinary skill at the time of the invention to combine Safadi with Stokes, Oulid-Aissa, and Long to provide incremental counters in order to provide unique identifiers for the change sequence numbers. Stokes, Oulid-Aissa, Long, and Safadi have related applications and use many technologies in common. Stokes, Oulid-Aissa, Long, and Safadi teach the use of protocol, the use of servers, the updating of data of data, the use of numbers, and the use of sequences and Oulid-Aissa, Long, and Safadi teach the use of computers, the use of databases, the use of networks, and the use of clients. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides time stamps, Long provides sub-sequence numbers, and Safadi provides incremental counters.

Safadi does not teach the use of sixteen bit variables.

However, Mikurak teaches the use of sixteen bit variables as follows.

"...One solution for creating and processing call records is to implement a fixed length call record format, such as a 32-word call record. A word is two (2) bytes, or sixteen (16) bits..." at col. 49, lines 7-11.

It would have been obvious to one of ordinary skill at the time of the invention to combine Mikurak with Stokes, Oulid-Aissa, Long, and Safadi to provide sixteen bit variables in order to permit an application designer to define the size of variables. Stokes, Oulid-Aissa, Long, Safadi, and Mikurak have related applications and use many technologies in common. Stokes, Oulid-Aissa, Long, Safadi, and Mikurak teach the use of protocol, the use of servers, the updating of data of data, the use of numbers, and the

use of sequences and Oulid-Aissa, Long, Safadi, and Mikurak teach the use of computers, the use of databases, the use of networks, and the use of clients and Stokes, Oulid-Aissa, and Mikurak teach the use of directories. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides time stamps, Long provides sub-sequence numbers, Safadi provides incremental counters, and Mikurak provides sixteen bit variables.

14. Claims 7, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, Oulid-Aissa, and Long as applied to claims 1 and 10 above respectively, and further in view of Mikurak.

As per claims 7 and 15, the "...replica identifier portion...", is taught by Stokes at p. 6, sec. 5.1,
the "...denotes an identifier of the consumer server...", is taught by Stokes at p. 6, sec. 5.1 and p. 3, sec. 4,
the "...that generated the change sequence number...", is taught by Stokes at p. 14, sec. 7 and p. 9, sec. 5.3.2.2,
but the "...and is sixteen bits in length...", is not taught by either Stokes, Oulid-Aissa, or Long.

However, Mikurak teaches the use of sixteen bit variables as follows.

"...One solution for creating and processing call records is to implement a fixed length call record format, such as a 32-word call record. A word is two (2) bytes, or sixteen (16) bits..."
at col. 49, lines 7-11.

It would have been obvious to one of ordinary skill at the time of the invention to combine Mikurak with Stokes, Oulid-Aissa, and Long, to provide sixteen bit variables in

Art Unit: 2167

order to permit an application designer to define the size of variables. Stokes, Oulid-Aissa, Long, and Mikurak have related applications and use many technologies in common. Stokes, Oulid-Aissa, Long, and Mikurak teach the use of protocol, the use of servers, the updating of data of data, the use of numbers, and the use of sequences and Oulid-Aissa, Long, and Mikurak teach the use of computers, the use of databases, the use of networks, and the use of clients and Stokes, Oulid-Aissa, and Mikurak teach the use of directories. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides time stamps, Long provides sub-sequence numbers, and Mikurak provides sixteen bit variables.

15. As per claims 8 and 16, the "...sub-sequence number portion...", is taught by Long at col. 6, lines 38-42, the "...is used to order operations within a single operation...", is taught by Stokes at p. 3, sec. 3, and the "...and is sixteen bits in length...", is taught by Mikurak at col. 49, lines 7-11.

16. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Stokes, Oulid-Aissa, and Long as applied to claim 10 above, and further in view of Horst.

As per claim 11, the "...of the change sequence number...", is taught by Stokes at p. 9, sec. 5.3.2.2, but the "...highest value..." and the "...is maintained in stable storage...", is not taught by either Stokes, Oulid-Aissa, or Long.

However, Horst teaches the use of the highest value and stable memory as follows:

"...The sectors of a disk are mapped to LBA values in sequence from 0 to the highest LBA on the disk or array..." at col. 11, lines 27-29.

"...If either target bin is Stable, both bins are changed to hanging and committed to nonvolatile storage before the normal disk write is begun..." at col. 16, lines 29-31.

It would have been obvious to one of ordinary skill at the time of the invention to combine Horst with Stokes, Oulid-Aissa, and Long to provide highest values and stable storage to maintain the highest value for the sequence numbers in memory such that it will remain whenever the power is off in order to maintain an orderly update of the data. Stokes, Oulid-Aissa, Long, and Horst have related applications and use many technologies in common. Stokes, Oulid-Aissa, Long, and Horst teach the use of servers, the update of data, the use of numbers, and the use of sequences and Oulid-Aissa, Long, and Horst teach the use of computers, the use of databases, and the use of networks. Stokes provides consumer and supplier servers and change sequence numbers, Oulid-Aissa provides time stamps, Long provides sub-sequence numbers, and Horst provides stable storage for the highest value of the update sequence number.

Response to Arguments

17. Applicants' arguments filed 14 October 2004 have been fully considered but they are not persuasive. In the first argument for independent claim 1 on page 7, paragraph 3, the Applicants state:

"In contrast, Stokes, Oulid-Aissa, and Long do not teach the use of a tuple for the change sequence number. Further, neither Oulid-Aissa nor Long teaches the use of a

Art Unit: 2167

change sequence number. In addition, where Stokes teaches the use of a change sequence number, the change sequence number is not in the form of a tuple. Specifically, the Examiner asserts that page 6 section 5.1 of Stokes and page 9 section 5.3.2.2 of Stokes teach a tuple that forms the change sequence number."

The Examiner disagrees. Oulid-Aissa teaches the use of database records at col. 10, lines 49-51. A "tuple" is defined as a set of related values, which is analogous to a record in a database. For this reason, the term "database record" suggests the term "tuple". Stokes teaches the use of a change sequence number at p. 9, sec. 5.3.2.2.

18. In the second argument for independent claim 1 on page 7, paragraph 4 and page 8, paragraph 1, the Applicants state:

"Further, none of Stokes, Oulid-Aissa, or Long teaches each of the components of the tuple as claimed in the present invention. The Examiner asserts that teaches the use of a sub-sequence number at column 6, lines 38-42. However, the sub-sequence number taught in Long differs from the claimed invention because the sub-sequence number is used during a failure of data transmission. The sub-sequence number taught in Long is only used to label a segment when it must be sub-segmented into smaller blocks."

The Examiner disagrees. Independent claim 1 states that the tuple contains a sub-sequence number. It does not further qualify the sub-sequence number. For this reason, any related prior art that teaches the use of a sub-sequence number is valid in this context.

19. In the third argument for claims 3-9 on page 8, paragraph 2, the Applicants state:

"In view of the above, Stokes, Oulid-Aissa, and Long, whether considered separately or together, fail to show or suggest the present invention as recited in claim 1 as amended. Thus, claim 1 as amended is patentable over Stokes, Oulid-Aissa, and Long. Dependent claims 3-9, which depend directly or indirectly from claim 1, are allowable for at least the same reasons."

The Examiner disagrees. Since the first two arguments have shown that independent claim 1 is rendered obvious, claims 3-9 depend either directly or indirectly on independent claim 1, and no additional arguments have been provided for any of claims 3-9, then dependent claims 3-9 are still rendered obvious.

20. In the fourth argument for independent claims 10 and 18 on page 8, paragraphs 3 and 4, the Applicants state:

"Claims 10 and 18 stand rejected under 35 U.S.C. § 103 as obvious over Stokes, Oulid-Aissa, and Long. This rejection is respectfully traversed. These claims contain similar subject material as claim 1 discussed above and are allowable for at least the same reasons.

Further, none of Stokes, Oulid-Aissa, or Long teaches a method for generating a change sequence number. Stokes merely describes a change sequence number, and page 9 section 5.3.2.2 of Stokes only states that a change sequence number is used. Page 9 section 5.3.2.2 of Stokes does not teach how a change sequence number is initialized. Further, the Examiner asserts that page 7 section 5.3 of Stokes and page 9 section 5.3.2.2 of Stokes teach the step of retrieving a sequence number portion. However, neither section 5.3 of Stokes, nor section 5.3.2.2 of Stokes describe a sequence number, and further they do not describe how to retrieve a sequence number."

The Examiner disagrees. Stokes teaches the setting of "requestValue" of the "StartReplicationRequest" in sec. 5.1 on page 5. The setting of a value is initialization since without the initialization a value of a variable is undefined. Stokes also teaches the requesting of values for the "StartReplicationRequest" in the same section. The requesting of values suggests a means for retrieving the values. Oulid-Aissa also teaches the retrieving of information at col. 21, lines 18-20. In section 5.3.2.2, Stokes teaches the use of a change sequence number, which is a sequence number. Since the first two arguments have shown that independent claim 1 is rendered obvious and independent claims 10 and 18 are rendered obvious by the same prior art as

Art Unit: 2167

independent claim 1, then independent claims 10 and 18 are still rendered obvious on this basis. Since Stokes teaches the initialization of values, both Stokes and Oulid-Aissa teach the retrieving of information, and Stokes teaches the use of sequence numbers, then independent claims 10 and 18 are still rendered obvious based the additional arguments presented.

21. In the fifth argument for claims 11-17 on page 8, paragraph 5 and page 9, paragraph 1, the Applicants state:

"In view of the above, Stokes, Oulid-Aissa, and Long, whether considered separately or together, fail to show or suggest the present invention as recited in claims 10 and 18. Thus, claims 10 and 18 are patentable over Stokes, Oulid-Aissa, and Long. Dependent claims 11-17, which depend directly from claim 10, are allowable for at least the same reasons."

The Examiner disagrees. Since the first four arguments have shown that independent claim 10 is rendered obvious, claims 11-17 depend directly on independent claim 10, and no additional arguments have been provided for any of claims 11-17, then dependent claims 11-17 are still rendered obvious.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

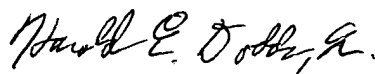
Art Unit: 2167

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold E. Dodds, Jr. whose telephone number is (571)-272-4110. The examiner can normally be reached on Monday - Friday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571)-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Harold E. Dodds, Jr.
Patent Examiner
May 16, 2005



GRETIA ROBINSON
PRIMARY EXAMINER